

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

Claims 1-9. **(Canceled)**

10. **(Currently amended)** A high-pressure pump for a fuel injection system of an internal combustion engine, comprising

a drive shaft (12),

at least one pump element (14), which has a pump piston (20) driven in a reciprocating motion by the drive shaft (12),

a ring (18) rotatably supported on a portion (16) of the drive shaft (12) disposed eccentrically to the pivot axis (13) of the drive shaft, on which ring the pump piston (20) is braced via a support element (24),

many microscope indentations (42) formed in the ring (18) and/or the support element (24), at least in their contact region; and

a solid lubricant film (40) **is applied to at least one of the ring (18) and the support element (24) in the region of the microscopic indentations applied to the ring (18) and/or to the support element (24), at least in their contact region.**

11. (Previously presented) The high-pressure pump of claim 10, wherein the microscopic indentations (42) have a depth of approximately 2 to 30  $\mu\text{m}$  and/or a width of approximately 15 to 30  $\mu\text{m}$  and/or a spacing from one another of approximately 30 to 150  $\mu\text{m}$ .

12. (Currently amended) A high-pressure pump for a fuel injection system of an internal combustion engine, comprising

a drive shaft (12),

at least one pump element (14), which has a pump piston (20) driven in a reciprocating motion by the drive shaft (12),

a ring (18) rotatably supported on a portion (16) of the drive shaft (12) disposed eccentrically to the pivot axis (13) of the drive shaft, on which ring the pump piston (20) is braced via a support element (24),

many microscope indentations (42) formed in the ring (18) and/or the support element (24), at least in their contact region; and

a solid lubricant film (40) applied to the ring (18) and/or to the support element (24), at least in their contact region The high-pressure pump of claim 10, wherein the microscopic indentations (42) are embodied in the form of dimples.

13. (Previously presented) The high-pressure pump of claim 11, wherein the microscopic indentations (42) are embodied in the form of dimples.

14. (Previously presented) The high-pressure pump of claim 10, wherein the microscopic indentations (42) are embodied in the form of grooves.

15. (Previously presented) The high-pressure pump of claim 11, wherein the microscopic indentations (42) are embodied in the form of grooves.

16. (Currently amended) A high-pressure pump for a fuel injection system of an internal combustion engine, comprising

a drive shaft (12),

at least one pump element (14), which has a pump piston (20) driven in a reciprocating motion by the drive shaft (12),

a ring (18) rotatably supported on a portion (16) of the drive shaft (12) disposed eccentrically to the pivot axis (13) of the drive shaft, on which ring the pump piston (20) is braced via a support element (24),

many microscope indentations (42) embodied in the form of grooves formed in the ring (18) and/or the support element (24), at least in their contact region; and

a solid lubricant film (40) applied to the ring (18) and/or to the support element (24), at least in their contact region, and The high-pressure pump of claim 14, wherein the grooves intersect.

17. **(Previously presented)** The high-pressure pump of claim 15, wherein the grooves intersect.

18. **(Currently amended)** The high-pressure pump of claim 16, ~~claim 14~~, wherein the grooves are embodied at least approximately in the shape of segments of a circle.

19. **(Previously presented)** The high-pressure pump of claim 15, wherein the grooves are embodied at least approximately in the shape of segments of a circle.

20. **(Previously presented)** The high-pressure pump of claim 10, wherein the solid lubricant film (40) contains polytetrafluoroethylene and/or graphite and/or molybdenum disulfide.

21. **(Previously presented)** The high-pressure pump of claim 11, wherein the solid lubricant film (40) contains polytetrafluoroethylene and/or graphite and/or molybdenum disulfide.

22. **(Previously presented)** The high-pressure pump of claim 12, wherein the solid lubricant film (40) contains polytetrafluoroethylene and/or graphite and/or molybdenum disulfide.

23. **(Previously presented)** The high-pressure pump of claim 14, wherein the solid lubricant film (40) contains polytetrafluoroethylene and/or graphite and/or molybdenum disulfide.

24. **(Previously presented)** The high-pressure pump of claim 10, wherein the solid lubricant film (40) has a binder material, in which solid lubricant particles are embedded, distributed uniformly.

25. **(Previously presented)** The high-pressure pump of claim 11, wherein the solid lubricant film (40) has a binder material, in which solid lubricant particles are embedded, distributed uniformly.

26. **(Previously presented)** The high-pressure pump of claim 12, wherein the solid lubricant film (40) has a binder material, in which solid lubricant particles are embedded, distributed uniformly.

27. **(Previously presented)** The high-pressure pump of claim 14, wherein the solid lubricant film (40) has a binder material, in which solid lubricant particles are embedded, distributed uniformly.

28. **(Previously presented)** The high-pressure pump of claim 10, wherein an adhesion-promoting intermediate layer (44) is disposed between the surface of the ring (18) and/or of the support element (24) and the solid lubricant film (40).

Appl. No. 10/537,247  
Amtd. dated July 9, 2007  
Reply to Office action of April 13, 2007

29. **(Previously presented)** The high-pressure pump of claim 11, wherein an adhesion-promoting intermediate layer (44) is disposed between the surface of the ring (18) and/or of the support element (24) and the solid lubricant film (40).

30. **(Previously presented)** The high-pressure pump of claim 12, wherein an adhesion-promoting intermediate layer (44) is disposed between the surface of the ring (18) and/or of the support element (24) and the solid lubricant film (40).